

REMARKS

Claims 1 and 4 have been amended. Support for the amendments can be found in original claim 3. Claim 3 has been canceled. Applicants reserve the right to pursue the original claims in this and in any other application.

Claims 1-10 and 12-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent no. 6,646,894 (Hong) in view of U.S. Patent no. 6,969,979 (Kohout). The rejection is respectfully traversed.

Claim 1 has been amended to recite the details of the clock signal detector part previously recited in original claim 3. Applicant respectfully submits that the cited combination fails to teach or suggest a “clock signal detector circuit part comprising: an edge detector circuit configured to detect at least one of a rising edge and a falling edge of signal level of the clock signal and output a pulse of a predetermined pulse width for the detected at least one of the rising edge and the falling edge every time the at least one of the rising edge and the falling edge is detected; an integrating circuit configured to charge a capacitor with a preset time constant; a switching device configured to release an electric charge stored in the capacitor upon the outputting of the pulse from the edge detector circuit; and a binarizing circuit configured to generate a control signal to perform operation control of the control circuit part by converting a terminal voltage of the capacitor into a binary signal, and output the generated control signal.” These features are simply not found in the cited combination. As such, claim 1 is allowable over the cited combination.

Moreover, as stated above, claim 1 has been amended to include the limitations of original claim 3. Regarding original claim 3, the Office Action merely states that “[a]s to claims 2-10 and 12, Hong teaches these claims as cited in the previous office action.” Office Action at 3. Applicant respectfully submits, however, that the previous Office Action (dated February 5, 2009) merely glosses over all of the dependent claims by simply stating “[a]s to claims 2-12, Hong clearly teaches the limitations to these claims.” Feb. 5, 2009 Office Action at 3. Thus, the present and past Office Actions have failed to fully and clearly state the reasons for rejection of claim 3 and the other

dependent claims. Applicant respectfully submits that the rejection of claim 3 and the other dependent claims is an improperly expressed “omnibus rejection” that is “not informative and should therefore be avoided” as provided in MPEP 707.07 (d). In *KSR*, the Supreme Court stated that “[r]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” M.P.E.P § 2141 (quoting *KSR*, 127 S.Ct. 1727, 82 USPQ2d 1385). The Office Action has merely concluded that the dependent claims are obvious, which is improper. This is another reason why the rejection should be withdrawn.

Furthermore, there is simply no teaching or suggestion of all of the claim 1 limitations in Hong or Kohout, even when the references are combined. Specifically, referring to Page 3 of the February 5, 2009 Office Action, the Examiner relies on Hong col. 3, lines 39-43 as allegedly disclosing the “clock signal detector circuit part” of claim 1. Applicant respectfully submits that nothing in the cited portion of Hong, or any other portions of Hong for that matter, teaches or suggests a “clock signal detector circuit part comprising: an edge detector circuit configured to detect at least one of a rising edge and a falling edge of signal level of the clock signal and output a pulse of a predetermined pulse width for the detected at least one of the rising edge and the falling edge every time the at least one of the rising edge and the falling edge is detected; an integrating circuit configured to charge a capacitor with a preset time constant; a switching device configured to release an electric charge stored in the capacitor upon the outputting of the pulse from the edge detector circuit; and a binarizing circuit configured to generate a control signal to perform operation control of the control circuit part by converting a terminal voltage of the capacitor into a binary signal, and output the generated control signal.”

Kohout, cited as teaching the stopping of the operation of a control part, fails to remedy the above-noted deficiencies of Hong. As such, claim 1 is allowable over the cited combination.

In addition, Applicant reiterates that Hong fails to teach or suggest that “the switching transistor, the control circuit part, and the clock signal detector circuit part are integrated into a single IC.” As mentioned, previously, this is an important aspect of the claimed invention that is

missing from Hong and also Kohout. This is tacitly acknowledged by the Office Action which merely concludes that “[i]t would have also been obvious . . . to have integrated the switching transistor, the control circuit part, and the clock signal detector circuit into a single IC because Kohout teaches that the switching regulator is used in a portable electronic device [and] [t]ypically, a portable electronic device includes circuitry on an integrated circuit.” Office Action at 3. As set forth above, mere conclusions are not enough to establish a *prima facie* case of obviousness. This is one more reason why claim 1 is allowable.

A *prima facie* case of obviousness must establish that the asserted combination of references teaches or suggests each and every element of the claimed invention. In view of the distinctions noted above, more than one claim element is not present in the cited combination. Hence, the Office Action fails to establish a *prima facie* case of obviousness for claim 1. Claims 2-4, 6-10 and 12 depend from claim 1 and are allowable for at least the reasons set forth above and on their own merits.

Claim 13 recites a method for operating a switching regulator comprising “detecting a clock signal; grounding a determination node when the clock signal rises; allowing the potential at the determination node to rise above a threshold level if the clock signal does not rise; asserting a standby signal if the potential at the determination node rises above the threshold level; and causing a control circuit to stop operating when the standby signal is asserted.” Claim 14 recites a method for placing a switching regulator in a standby state comprising “detecting a clock signal; grounding the potential at a determination node when the clock signal rises; allowing the potential at the determination node to rise above a threshold level if the clock signal does not rise; and asserting a standby signal if the potential at the determination node rises above the threshold level.” Applicant respectfully submits that claims 13 and 14 are also allowable over the cited combination for many reasons.

Initially, Applicant notes that the Office Action rejects these claims by merely stating that “[a]s to claims 13-16, Hong and Kohout teach these limitations according to the reasoning set

forth in claim 1 supra.” Office Action at 3. Applicant respectfully submits that this is another example of the Office Action’s omnibus-type rejections, which must be withdrawn.

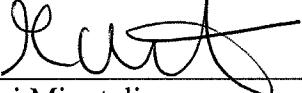
At no point in the Office Action are the limitations “grounding [a potential at] a determination node when the clock signal rises; allowing the potential at the determination node to rise above a threshold level if the clock signal does not rise; [and] asserting a standby signal if the potential at the determination node rises above the threshold level” addressed in the claim 1 rejection. Thus, there is no support anywhere in the Office Action for the rejection of these claim 13 and 14 limitations. Absent any such reasoning, the Office Action cannot maintain its obviousness rejection as it has not provided “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” M.P.E.P § 2141. In addition, Applicant respectfully submits that these limitations are not found in the cited combination. Accordingly, claims 13 and 14 are allowable over the cited combination. Claims 15 and 16 depend from claim 14 and are allowable along with claim 14.

For at least the reasons stated above, the rejection should be withdrawn and the claims allowed.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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